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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,077	10/26/2000	Hideyuki Kimura	107714	1563

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EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,077

Applicant(s)

KIMURA ET AL.

Examiner

Marc A Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12-14 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-14 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 112 second paragraph rejection of Claims 6 and 13 – 14, of record on page 2 of the previous Action, is withdrawn.

The 35 U.S.C. 102(b) rejection of Claims 1 – 2 and 21 as being anticipated by Suzuki et al (Japanese Patent No. 6246777) of record on page 2 of the previous Action, is withdrawn.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 13 – 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase ‘partially fitting the insert in the cylindrical shape into the outer mold unit in a state that the injection molding mold is pulled out’ is indefinite as the meaning of ‘partially fitting’ is unclear, and the phrase ‘in a state’ also makes it unclear if the step of pulling out the mold or the step of fitting is performed first. For purposes of examination, it will be assumed that the insert is held in the mold by any force.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (Japanese Patent No. 6246777).

With regard to Claims 1 and 21, Suzuki et al disclose a cylindrical body (therefore having an inner surface and barrel portion having an outer surface; paragraph 0018, English translation; Figure 2) and a sheet – shaped insert having an upper end (blank plate; paragraph 0018, English translation; Figures 2 and 3) wherein the insert is bonded to the outer surface of the barrel portion (paragraph 0018, English translation; Figure 2), and therefore has an inner face bonded to the barrel portion and an outer face opposite the inner face; the body is made by a process in which a core (paragraph 0012, English translation) is inserted into a mold (retainer plate of a split mold; paragraph 0012, English translation) to form a cavity in between through which thermoplastic is injected (paragraph 0012, English translation). Suzuki et al fail to disclose a body having a mark which is made by an injection gate opening, positioned at its inner surface, while being inwardly apart from the upper end of the insert in an axial direction and at a position corresponding to a position on the inner surface that is covered by the insert. However, Suzuki et al disclose injecting the resin through two or more runners which are drilled in the core (paragraph 0011, English translation; the runners are numbered '32' in Figure 2), for the purpose of connecting the injection gate with the cavity (paragraph 0011, English translation). Therefore, one of ordinary skill in the art would have recognized the utility of providing for additional runners, which connect the injection gate with the cavity at different locations along the cavity, depending on the desired number of connection points, as taught by Suzuki et al. Because the

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insert is located in the cavity (paragraph 0026, English translation), one of ordinary skill in the art would therefore recognize the utility of providing for additional runners which connect the injection gate with the cavity at locations which include locations which are covered by the insert, and are at positions inwardly apart from the upper end of the insert, depending on the desired number of connection points between the injection gate and the cavity and the locations of the connection points as taught by Suzuki et al, thus producing marks of the injection gate at those positions, because the presence of resin at those positions marks the presence of the injection of the resin.

With regard to Claim 2, the cylindrical article further comprises a gap on the outer surface positioned between opposed ends of the insert and not covered by the insert (the edges of the insert; (paragraph 0018, English translation; Figure 2).

6. Claims 3 – 6 and 12 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (Japanese Patent No. 6246777) in view of Asahi Chemical (Japanese Patent No. 03286815).

With regard to Claim 3, Suzuki et al disclose a cylindrical body having an inner surface, a barrel portion having an outer surface an insert having an upper end and a gap between the two edges of the insert as discussed above. Suzuki et al also disclose a method for making an insertion – molded cylindrical article using an injection molding mold (paragraph 0005, English translation) which comprises a core (paragraph 0012, English translation) which is inserted into a mold (retainer plate of a split mold; paragraph 0012, English translation) to form a cavity in between through which thermoplastic is injected (paragraph 0012, English translation); the

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injection mold is therefore an insertion injection molding mold. The mold comprises an outer mold unit (split molds which are held in a retainer plate; paragraph 0012, English translation) which defines a core inserting space (a core is inserted into the space between the split molds in the retainer plate; paragraph 0012; Figure 7), and the core which is inserted into the space has an injection gate opening (runner; paragraph 0012, English translation) and is pulled out of the space to fabricate the container (paragraph 0025, English translation); the outer mold unit therefore has an inner surface and a pull – out mold unit and defines a core – inserting space therein, a core having an injection gate opening and shaped to be inserted and fitted into the outer molding unit; a molding cavity is defined between the outer mold unit and the core (cavity; paragraph 0025, English translation); the method comprises fitting, attaching and holding the insert along the inner surface of the outer molding unit (the insert is welded to the thermoplastics which constitutes the pillar section, and is therefore fitted into the pillar section; paragraph 0018, English translation), injecting a molten resin through the injection gate opening (thermoplastics are injected through the runner; paragraph 0018, English translation) toward the molded body inner surface (the molded body is formed by the injection of the thermoplastic through the runner, therefore the inner surface of the container is also formed; paragraph 0018, English translation) the insert is located in the cavity between the core and outer mold (paragraph 0026, English translation) and is therefore pushed onto the inner surface of the outer molding unit the insert is integrally bonded to the outer surface of the barrel portion of the cylindrical body (paragraph 0018, English translation; Figure 2).

Suzuki et al fail to disclose injecting the resin at a position inwardly apart from the upper end of the insert and at a position on the molded body inner surface that is covered by the insert.

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However, Suzuki et al disclose injecting the resin through two or more runners which are drilled in the core (paragraph 0011, English translation; Figure 2), for the purpose of connecting the injection gate with the cavity (paragraph 0011, English translation). Therefore, one of ordinary skill in the art would have recognized the utility of providing for additional runners, which connect the injection gate with the cavity at different locations along the cavity, depending on the desired number of connection points, as taught by Suzuki et al. Because the insert is located in the cavity (paragraph 0026, English translation), one of ordinary skill in the art would therefore recognize the utility of providing for additional runners which connect the injection gate with the cavity at locations which include locations which are covered by the insert, and are at positions inwardly apart from the upper end of the insert, depending on the desired number of connection points between the injection gate and the cavity and the locations of the connection points as taught by Suzuki et al.

It therefore would have been obvious for one of ordinary skill in the art to inject the resin at a position inwardly apart from the upper end of the insert and at a position on the molded body inner surface that is covered by the insert, depending on the desired number of connection points between the injection gate and the cavity and the locations of the connection points as taught by Suzuki et al.

Suzuki et al also fail to disclose curing the molten resin.

Asahi Chemical teaches that thermoplastic resins and thermosetting resins are used alternatively in the making of containers for the purpose of making a container having a good appearance (English Abstract). Therefore, one of ordinary skill in the art would have recognized the utility of providing for the thermosetting resin taught by Asahi Chemical, rather than a

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thermoplastic resin, in Suzuki et al, which is a container, depending on the desired surface appearance of the end product as taught by Asahi Chemical.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a thermosetting resin in Suzuki et al in order to make a container having a good appearance as taught by Asahi Chemical, thus providing for a resin which continuously throughout the molding process of Suzuki et al including the step following injection of the resin.

With regard to Claim 4, Suzuki et al do not disclose the injecting the resin towards the gap; the claimed aspect of the resin not being injected towards the gap therefore reads on Suzuki et al.

With regard to Claims 5 and 12, a knock out pin is provided in the core disclosed by Suzuki et al (ejection pin; paragraph 0011, English translation), and the method further comprises pulling out the pull – out mold unit of the outer mold unit after the insertion molding (paragraph 0025, English translation) and cutting a connection between the cured resin inside the injection gate opening and cylindrical body by raising the knock – out pin (the ejection pin is raised, eliminating thermoplastics remaining between the core and runner, thus cutting the connection between molded body and the knock – out pin; paragraph 0011, English translation) and removing the cylindrical article by pushing the bottom portion of the cylindrical molded body (the fabricated compound container is taken out from the core by moving upwards the stripper plate with which its bottom portion is in contact (paragraph 0022; English translation; Figure 9).

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With regard to Claims 6 and 13 – 14, as discussed above the insert disclosed by Suzuki et al is fitted, attached and held in a cylindrical shape along the inner surface of the outer mold unit.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant arguments regarding the 35 U.S.C. 112 second paragraph rejection of Claims 6 and 13 – 14 and 35 U.S.C. 102(b) rejection of Claims 1 – 2 as being anticipated by Suzuki et al (Japanese Patent No. 6246777), of record in the previous Action, have been considered and have been found to be persuasive. The rejections are therefore withdrawn.

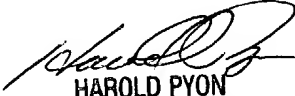
The new 35 U.S.C. 103(a) rejection of Claims 1 – 2 and 21 as being unpatentable over Suzuki et al (Japanese Patent No. 6246777) and 35 U.S.C. 103(a) of Claims 3 – 6 and 12 – 14 as being unpatentable over Suzuki et al (Japanese Patent No. 6246777) in view of Asasi Chemical (Japanese Patent No. 03286815) above are directed to Claims 1 – 6, 12 – 14 and 21.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

Marc Patterson
Art Unit 1772


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/19/04